2017 Independent Medical Review (IMR) Report: Analysis of 2016 Data

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Executive Summary

In September 2012, Governor Brown signed into legislation Senate Bill 863. This reform of the workers' compensation system in California included Independent Medical Review (IMR), which went into effect January 1, 2013. Now in its fifth year, IMR continues to provide expedient, efficient resolution of disputes over medical necessity in the California workers' compensation system.

In 2016, the Independent Medical Review Organization (IMRO) processed nearly 250,000 applications, a slight decrease from 2015. Of those, 69% (172,452) were determined to be eligible for review. Concurrently, the IMRO issued 176,002 IMR determinations. At the end of 2015, the average length of time the IMRO took to issue a determination, after the receipt of all necessary medical records, was 24 days. By mid-2016, this decreased to a monthly average of 15 to 18 days for the rest of the year.

Overall, the IMRO *overturned* 8.4% of the utilization review decisions that denied treatment requests made by physicians treating injured workers. Analysis of several variables, including the geographic region of the injured worker, the age of the worker's work-related injury, and representation by an attorney or other entity acting on behalf of the injured worker, shows similar rates of overturned case decisions.

As in the previous two calendar years, requests for pharmaceuticals in 2016 comprised nearly half (43.5%) the issues in dispute, with opioids the most common drug class (30%). Rehabilitation services—such as physical therapy, chiropractic, and acupuncture—were the second-most-requested category (13.6%), followed by diagnostic testing (13.3%). The treatment category most often overturned was evaluation and management (with a 20% overturn rate), which includes specialist consultations and dental services, followed by psychiatric services, which had an 18% overturn rate.

Enhancements to the IMR program continued in 2016. Updates to the Medical Treatment Utilization Schedule (MTUS) treatment guidelines included a revised guideline on chronic pain and a new chapter on opioids. The Division of Workers' Compensation (DWC) introduced its first online Physician Education Module to reinforce correct usage of the MTUS treatment guidelines. In preparation for the updated MTUS guidelines on chronic pain and opioids treatment, the IMRO included the new MTUS guideline citations in the IMR system and trained physician reviewers on the guideline content. Data from the fourth quarter of 2016, the first full quarter following these changes, shows that IMR expert reviewers based their decisions on recommendations within the MTUS treatment guidelines in nearly four of every five determinations.

In May 2016, the DWC implemented a search tool to assist the public in finding IMR determinations posted on the DWC's web site, which total over a half-million IMR decisions. This tool enables the public to search case decisions using specific criteria, such as the category of treatment request and the date(s) of injury. In 2016, the site received over 21,000 visits.

Introduction

In September 2012, Governor Brown signed into legislation Senate Bill 863. This reform of the workers' compensation system in California included Independent Medical Review (IMR), which went into effect January 1, 2013. IMR is an efficient, expedient process for resolving disputes over the appropriateness of medical treatment recommended by physicians for injured workers but rejected in the utilization review (UR) process. The expert reviewers follow the principles of evidence-based medicine to determine medical necessity of the requested treatment. This report analyzes the progress in this program's fourth year.

About IMR

A UR decision delaying, modifying, or denying a treatment request because it is not medically necessary is final and in effect for one year unless it is overturned through IMR. The IMR process requires that appropriately qualified independent medical professionals determine the medical necessity of recommended treatment based on the Medical Treatment Utilization Schedule (MTUS).

To dispute a UR denial or modification on one or more requested treatments, injured workers or their legal representatives must, within 30 days, submit a signed IMR application that has been completed (except for the signature) by the UR claims administrator, along with a copy of the UR decision. Upon receipt of an eligible application, the Independent Medical Review Organization (IMRO) requests medical records from the claims administrator, the worker, the attorney if represented, and the requesting physician.

After the medical records are received, the IMRO assigns the case to an expert physician reviewer. Unless the case is terminated or withdrawn during the process, it is resolved when the assigned physician reviewer communicates the IMR decision(s) to the worker or representative, employer or insurer, and requesting physician in a Final Determination Letter (FDL). Redacted copies of FDLs are available on the DWC website.

The cost of IMR is borne by employers through direct payment to the IMRO. Maximus Federal Services has been the IMRO since the program's inception in 2013 and is under contract to provide IMR through December 31, 2017.

For further information on the IMR process, see Appendix A.

IMR Program Enhancements in 2016

- An IMR result search tool was added to the DWC website to further promote
 community education and transparency of the process. Over a half-million IMR
 decisions are posted on the site, and this tool enables members of the public to
 search case decisions using specific criteria, such as the category of treatment
 request and the date(s) of injury. The site received over 21,000 visits in 2016.
- The IMRO successfully launched a pilot of the IMR portal for electronic filing of IMR cases. Several tests were completed in 2016 to ensure a smooth transition to a live site in early 2017.
- In July 2016, the DWC updated its treatment guidelines for chronic pain and opioids in the MTUS.
- In October 2016, the DWC launched its first online Physician Education Module, through which physicians and other interested parties can learn to use the MTUS to maximize patient recovery, function, and return to work. Health-care providers can obtain one hour of continuing education credit at no cost.

Analysis of 2016 IMR Data

The IMRO provides the DWC with data that includes information from the IMR application, details on the types of treatments in review, and evidence cited by the expert reviewers for their decisions.

Geographic regions were determined from the ZIP Code of the IMR application as listed in the case file. The ZIP Code was matched against the monthly US Postal ZIP Code Table identifying ZIP Codes by county. Counties were then grouped together by region.

The field for the treatment request in the IMR application is a text box that is now manually classified by trained personnel at the IMRO. This has improved accuracy and while the 2016 data have a small number of unclassified treatments, it is at a much lower rate (4.6%) than in 2015 (8.4%) or 2014 (9.8%).

Results

In 2016, the IMRO received a total of **249,436** IMR applications, slightly fewer than it received in 2015 (253,779). However, compared to previous years, the number of unique IMR applications and eligible applications increased. (See Figure 1.)

Of the nearly quarter-million applications filed in 2016, over one in five (21.4%) were duplicates of applications previously received. After subtracting duplicate applications, the number of "unique" IMR applications received was 196,057, a monthly average of 16,338. After an application is determined not to be a duplicate, it is screened for eligibility. In 2016, 172,452 eligible applications were processed by the IMRO, a monthly average of 14,371.

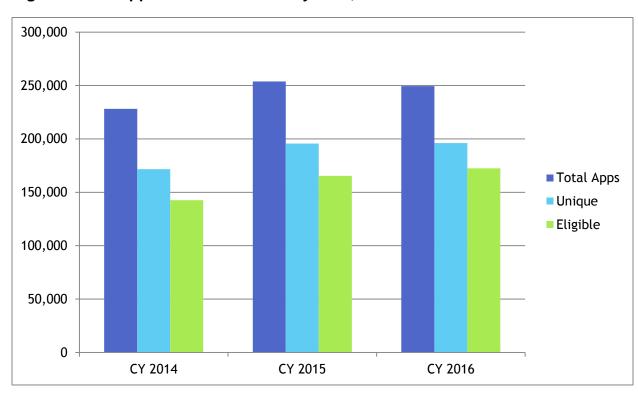


Figure 1: IMR Applications Received by Year, 2014–2016

N = 249,436 IMR applications received in 2016, of which 196,057 were unique applications, and 172,452 were eligible applications. For numbers in previous years, see https://www.dir.ca.gov/dwc/imr/reports/2016 IMR Annual Report.pdf.

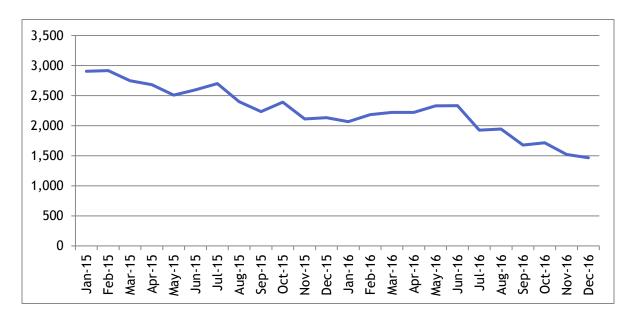
Source: DWC.

The IMR Timeline

Ineligible IMR Applications

Approximately 2,000 IMR applications were determined to be ineligible each month on average. This number had remained steady since mid-2015, but the last few months of 2016 showed a record-low number of ineligible applications.

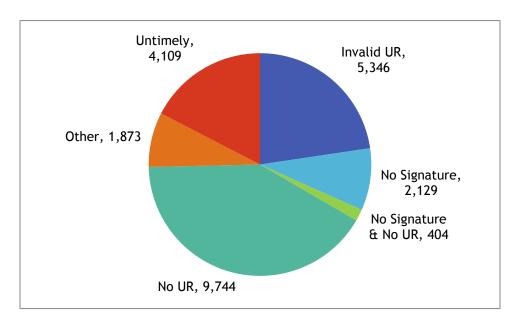
Figure 2a: IMR Applications Determined to Be Ineligible by Month, 2015–2016



N = 53,925 applications ineligible January 2015–December 2016. Source: DWC.

Of the 23,605 applications in 2016 deemed ineligible, 10,148 of them were judged ineligible at least in part because the application was filed with no UR attached.

Figure 2b: Reasons for IMR Ineligibility (All), 2016



N = 249,436 IMR applications received in 2016, of which 23,605 (9.5%) were ineligible. Source: DWC.

An IMR application is ineligible (1) if it lacks the signature of the injured worker (or representative); (2) if it is not on time, that is, not submitted within 30 days of receipt of the UR decision; (3) if the UR report is not attached to the application; or (4) if the UR is not valid (conditionally noncertified*).

*Conditionally noncertified (CNC) decision: A UR decision that has been denied because the treating physician has not provided the medical information requested by the claims administrator that is required to make a medical necessity determination on the treatment recommendation.

Timeliness of IMR Decisions

Standard IMR decisions must be issued within 30 days of receipt of the medical records. Decisions for expedited applications are due within 72 hours. At the beginning of the year, the monthly average for issuance after receipt of medical records was 24 days. By December, this average was reduced to 14 days.

Figure 3: Average Number of Days to Complete Standard IMRs, 2015–2016

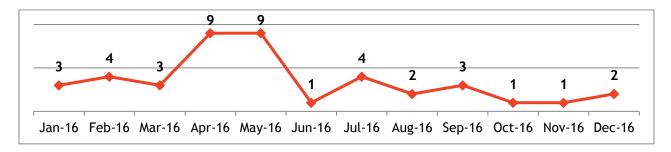
N = 341,456 IMR cases (standard determinations), January 2015–December 2016. Source: DWC.

- The "Average Age from Assigned Date" line shows the average number of calendar days required to process an IMR from the date the Notice of Assignment and Request for Information (NOARFI) was mailed to the date the Final Determination Letter (FDL) was mailed.
- The "Average Age from Complete Medical Records" line shows the average number of calendar days required to process an IMR from the date Maximus received all necessary records to the date the FDL was mailed.

Expedited Cases

Forty-two expedited cases were decided in 2016. The monthly average for length of time from receipt of the application to issuance of a decision was from one to five days.

Figure 4: Number of IMR Expedited Case Decisions by Month, 2016



N = 42 IMR cases (expedited reviews), January–December 2016. Source: DWC.

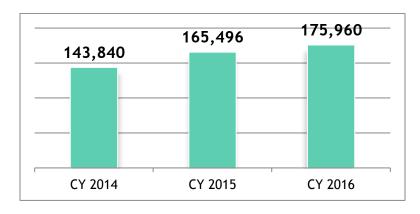
"Expedited review" means utilization review or independent medical review conducted when the injured worker's condition is such that the injured worker faces an imminent and serious threat to his or her health, including, but not limited to, the potential loss of life, limb, or other major bodily function, or the normal timeframe for the decision-making process would be detrimental to the injured worker's life or health or could jeopardize the injured worker's permanent ability to regain maximum function.

8 CCR § 9792.6.1(j)

Final Determinations Issued: Standard Case Decisions

The IMRO issued **175,960** standard determinations in 2016. This is a 6.3% increase from the previous year (165,496) and a 22.3% increase from 2014 (143,840). On average, the IMRO issued 14,641 standard determinations each month in 2016.

Figure 5: IMR Final Determination Letters by Year, 2014–2016

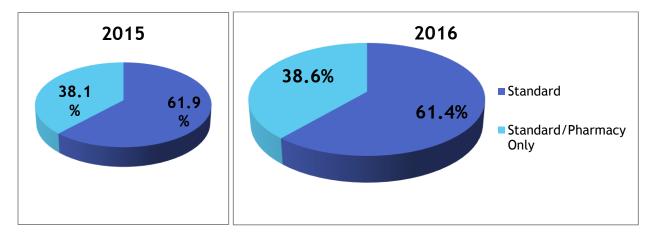


Source: DWC.

Pharmacy-Only Cases

In 2016, 38.6% of IMR applications contained only pharmacy-related treatment requests, thus they were eligible for the lower application price of \$345, rather than \$390. This is an almost identical ratio to 2015, when the fee for pharmacy-only cases was originally lowered.

Figure 6: Accepted IMR Applications for Pharmacy Only, 2015–2016



	2015	2016
Standard case decisions	102,415	108,119
Standard case decisions involving only pharmaceutical treatment requests	63,081	67,841
Total	165,496	175,960

N = 341,456 IMR cases (standard determinations), January 2015–December 2016. Source: DWC.

Who Files for IMR?

In 2016, 84,671 unique claim numbers generated 176,002 completed IMR cases, with an average of just over two IMRs per year per claim. Although the majority of claims (55%) yielded only one completed IMR case, over 4,500 claims were responsible for six or more IMR cases in 2016.

Table 1: Number of IMRs per Claim, 2016

Number of IMRs per claim in 2016	Number of claims with this many IMRs	Percentage of claims with this many IMRs
1	46,981	55.5%
2	17,291	20.4%
3	8,575	10.1%
4	4,534	5.4%
5	2,717	3.2%
6 or more	4,573	5.4%
Total Claims (with IMRs)	84,671	100.0%

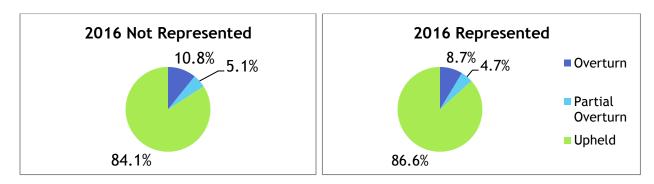
N = 176,002 IMR case decisions issued January–December 2016.

Note: This number includes only claims in which one or more IMR case decisions was issued in 2016. Source: DWC.

Worker Representation

In 2016, 167,563 (95.2%) of the 176,002 IMR case decisions were for applications that listed representation for the injured worker. Ratios of case outcomes were similar for represented and unrepresented applicants. The overall outcome of IMR reviews is at the case level; a case may contain one or more treatment requests.

Figure 7: Case Outcomes: Worker Representation Status, 2016



Geographic Region

The number of IMRs issued in 2016 continues to be proportionate to the number of claims filed in each of the ten California geographic regions. As in past years, case decision outcomes were consistent by region – the ratios of IMR cases overturned, partially overturned, and upheld is similar in every geographic area listed below.

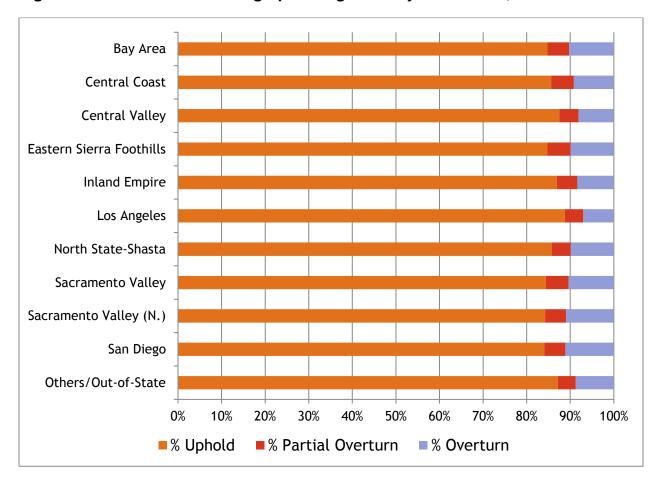


Figure 8: Case Outcomes: Geographic Region of Injured Worker, 2016

- Overturned. All the disputed items/services are medically necessary and appropriate.
- Partially Overturned. Some (but not all) of the disputed items/services are medically necessary and appropriate.
- Upheld. None of the disputed items/services are medically necessary and appropriate.

Year of Injury

Case outcomes are also similar in terms of the age of the injury for which the IMR is filed. Cases in which the injury is recent, from a few years ago, and from several years ago were grouped into virtually equal sample sizes, and the case outcomes were very similar.

Table 2: Case Outcomes by Age of Injury, 2016

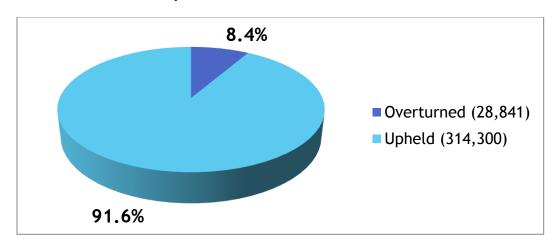
Date of Injury	Total	Overturn	Partial Overturn	Uphold	% Overturn	% Partial Overturn	% Uphold
CY 2015	26,026	2,235	1,020	22,771	8.6%	3.9%	87.5%
CY 2011-12	26,118	2,364	1,214	22,540	9.1%	4.6%	86.3%
CY 2002-7	26,227	2,306	1,435	22,486	8.8%	5.5%	85.7%

N = 78,371 IMR case decisions issued January–December 2016. Source: DWC.

Disputed Treatment Request

"Treatment request" refers to the medical treatment that was denied or modified in UR and challenged through the IMR process. IMR cases have one or more disputed treatments. In 2016, 343,141 treatment decisions were made in the 176,002 decided cases. Overall, 8.4% of these treatment request decisions were overturned, meaning the IMRO decided that the disputed service was medically necessary and appropriate. Conversely, when the IMRO ultimately finds a treatment request for a disputed service to be not medically necessary and appropriate, the IMRO "upholds" the denial of the treatment request, and the treatment request decision is considered "upheld."

Figure 9: All Treatment Request Outcomes, 2016

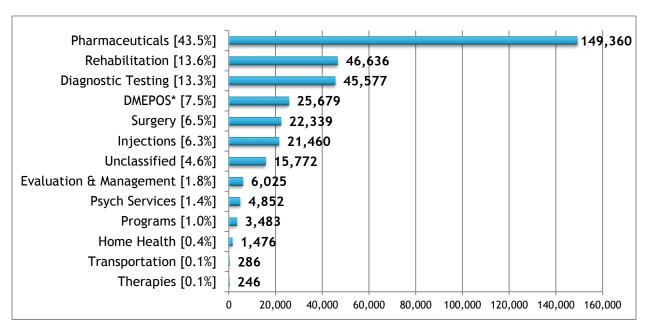


N = 343,141 treatment requests from 176,002 IMR case decisions issued January–December 2016. Source: DWC.

Decisions by Treatment Category

Pharmaceuticals were by far the most common treatment category in 2016 (43.5%), although slightly less common than in 2014 (46%) and 2015 (49%). Requests for rehabilitation, which includes physical therapy/occupational therapy, chiropractic, and acupuncture services made up again the second-largest category of treatment requests. Diagnostic testing, as in previous years, was the third-largest category.

Figure 10a: Categories of Disputed Treatment Requests, by Number and Percentage, 2016



N = 343,141 treatment requests from 176,002 MR case decisions issued January–December 2016. Source: DWC.

* DMEPOS: Standard term for **D**urable **M**edical **E**quipment, **P**rosthetics, **O**rthotics, and **S**upplies.

As illustrated in the following graph, the overturn rates are highest for Evaluation & Management (20%), and Psych Services (18%).

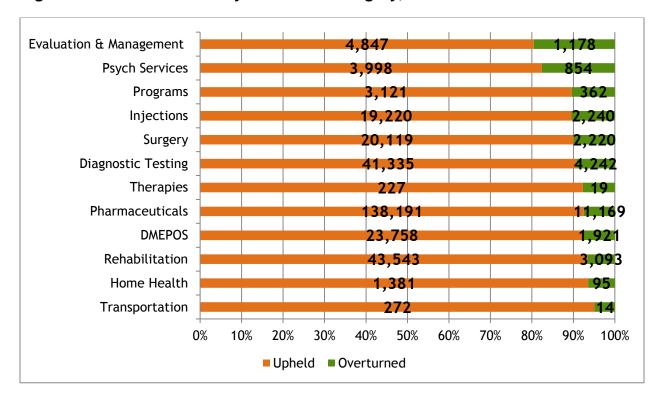


Figure 10b: IMR Decisions by Treatment Category, 2016

N = 327,419 treatment requests from 176,002 IMR case decisions issued January–December 2016. (Note: 4.6% treatment requests are unclassified and not included in Figures 10a-b.) Source: DWC.

Pharmaceuticals

Three of every ten pharmaceutical requests (30%) are for opioids, followed by nonsteroidal anti-inflammatory drugs (NSAIDs) (14%) and muscle relaxants (14%).

Table 3: Most Requested Pharmaceuticals by Drug Class, 2014–2016

Drug Class	2014	% Pharm	2015	% Pharm	2016	% Pharm
Opioids	33,224	29%	44,493	32%	44,981	30%
NSAIDs	12,736	11%	17,028	12%	20,768	14%
Muscle Relaxants	14,376	13%	18,005	13%	20,393	14%
Topical Analgesics	11,029	10%	10,239	7%	11,259	8%
Proton Pump Inhibitors	8,675	8%	9,466	7%	9,627	6%
All Other Pharmacy	33,491	29%	40,124	29%	42,332	28%
Total Pharmacy	113,531		139,355		149,360	

N = 149,360 treatment requests for pharmaceuticals issued January–December 2016. Source: DWC.

Overturn rates for the most requested pharmaceuticals include 9.5% for opioids, 8.8% for NSAIDs, 7% for proton pump inhibitors, 2.9% for muscle relaxants, and 2.6% for topical analgesics.

40,670 4,311 Opioids **NSAIDs** 18,939 1,829 **Proton Pump Inhibitors** 8,951 676 Muscle Relaxants 19,809 **584** Topical Analgesics 10,961 **298** 0% 10% 20% 30% 40% 50% 60% 70% 90% 80% 100% ■ Upheld ■ Overturned

Figure 11: IMR Decisions of Most Requested Pharmaceuticals, 2016

N = 149,360 treatment requests for pharmaceuticals issued January–December 2016. Source: DWC.

Rehabilitation Services

Rehabilitation services include physical therapy (PT), occupational therapy (OT), chiropractic, and acupuncture. PT/OT combined were most common (58%), followed by acupuncture (15%), and other therapies (15%), such as speech therapy.

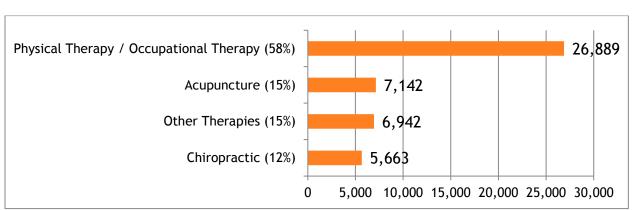


Figure 12a: Rehabilitation Services Requests by Category, 2016

N = 46,636 treatment requests for rehabilitation services issued January–December 2016. Source: DWC.

Diagnostic Testing

The category Diagnostic Testing includes subcategories for imaging and radiology (x-rays, MRI, CT scans); lab and pathology (urinalysis, blood tests); tests for muscle and nerve function (EMG, NCV, NCS) and other diagnostic tests, such as cardiograms. Requests for imaging and radiology were the most prevalent (44%), followed by lab and pathology (31%) and nerve and muscle tests (17%).

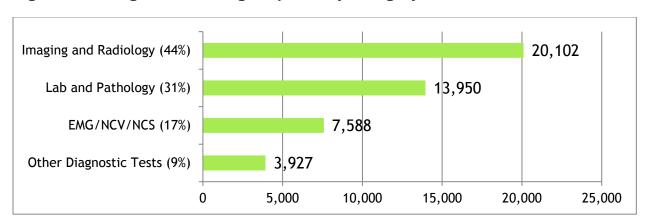


Figure 12b: Diagnostic Testing Requests by Category, 2016

N = 45,567 treatment requests for diagnostic testing services issued January–December 2016. Source: DWC.

IMR Decisions and Application of MTUS Treatment Guidelines

The MTUS provides medical treatment guidelines as well as a Medical Evidence Search Sequence and Methodology for Evaluating Medical Evidence to provide an analytical framework for the treatment of injured workers. The MTUS helps medical providers understand which evidence-based treatments have been effective in providing improved medical outcomes.

The MTUS lays out treatments scientifically proven to cure illnesses or treat work-related injuries, based on the diagnosis. IMR reviewers apply the MTUS Medical Evidence Search Sequence and MTUS Methodology for Evaluating Medical Evidence in making a determination of medical necessity for a requested treatment.

In July 2016, regulations were approved that updated the existing Chronic Pain Medical Treatment Guidelines. The DWC also adopted the new Opioid Treatment Guidelines, which specifically addresses best practices in the use of opioids to manage or treat pain.

In preparation for the updated guidelines, the IMRO updated the IMR system to include the new MTUS guidelines as a citation option and provided physician reviewers with education on guideline content. In order to assess the impact of the updated guidelines, data on decisions issued in the fourth quarter of 2016, the first full quarter following these changes, were evaluated.

In nearly four of every five treatment request determinations, the decisions of expert reviewers were based on recommendations in the MTUS Treatment Guidelines.

Decisions based on recommendations within the MTUS Treatment Guidelines (66,421)

Decisions based only on recommendations outside of the MTUS Treatment Guidelines (17,635)

Figure 13: Application of MTUS Treatment Guidelines, 2016 (Fourth Quarter)

N = 84,056 treatment requests from decisions issued October–December 2016. Source: DWC.

The updated Chronic Pain Medical Treatment Guidelines cover many types of treatment. These guidelines were applied to 43% of the treatment request decisions.

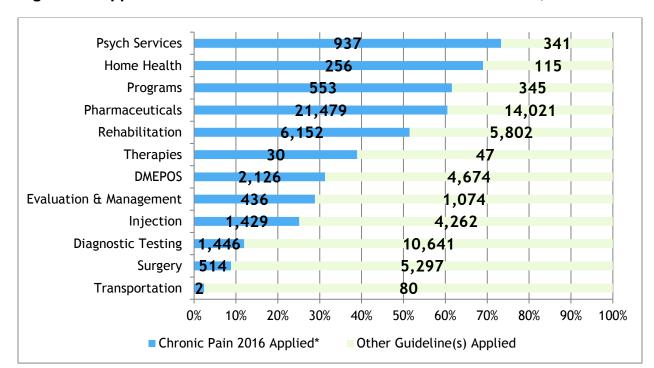


Figure 14: Application of Chronic Pain Medical Treatment Guidelines, 2016

N = 82,056 treatment requests from decisions issued October–December 2016. (Note: 2.4% treatment requests are unclassified and not included in Figure 14.)

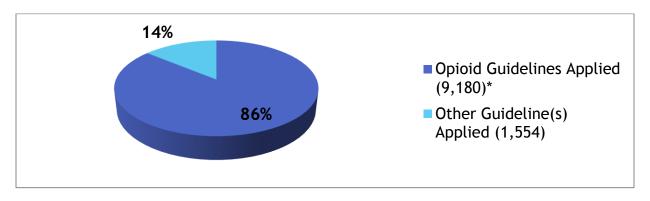
*Other guidelines may have been applied in conjunction with the Chronic Pain Medical Treatment Guidelines.

Source: DWC.

Opioid Guidelines

In the fourth quarter of 2016, 10,734 IMR requests were made for opioids. According to the data, IMRO reviewers cited the MTUS Opioid Treatment Guidelines in 9,180 (86%) of the IMR decisions on requests for opioids. Before the adoption of these guidelines, IMRO reviewers typically cited the 2009 MTUS Chronic Pain Treatment Guidelines, which included opioid therapy. The data indicate that IMRO reviewers are using the most current guidelines in making their decisions.

Figure 15: IMRO Citation of MTUS Opioid Medical Treatment Guidelines, 2016 (Fourth Quarter)

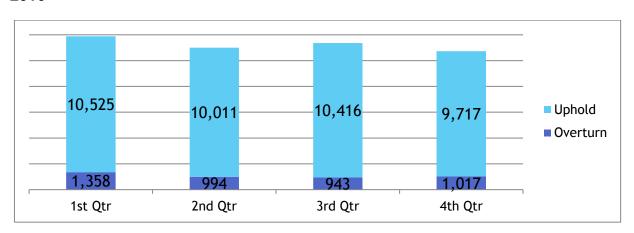


N = 10,734 treatment requests for opioids issued October–December 2016.

*Other guidelines may have been applied in conjunction with the Opioid Medical Treatment Guidelines. Source: DWC.

The number of requests and IMR decision outcomes was compared by quarter in 2016 to determine any impact of the MTUS Opioids Guideline on new requests for opioid therapy. The number of opioid treatment requests was 11,883 in the first quarter and 10,734 in the fourth quarter, a 10% reduction. The rate of overturn for opioids had been relatively stable, with slight reductions in overturn rates in the fourth quarter.

Figure 16: Opioid Treatment Request Outcomes, by Count and Rate of Overturn, 2016



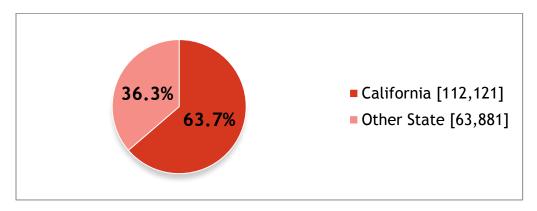
	1st Qtr	Q1%	2nd Qtr	Q2%	3rd Qtr	Q3%	4th Qtr	Q4%
Overturn	1,358	11.4%	994	9.0%	943	8.3%	1,017	9.8%
Uphold	10,525	88.6%	10,011	91.0%	10,416	91.7%	9,717	90.2%
Total	11,883	100.0%	11,005	100.0%	11,359	100.0%	10,734	100.0%

N = 44,981 treatment requests for opioids issued January–December 2016. Source: DWC.

Physician Reviewers

Expert reviewers licensed in the State of California are responsible for the majority of IMRs. Nearly two of every three cases were evaluated by a California-licensed reviewer.

Figure 17: IMR Expert Reviewers by their State of License, 2016



N = 176,002 IMR case decisions issued January–December 2016. Source: DWC.

Although the expert reviewers may have more than one board certification, cases are assigned based on the *relevant* specialty of the reviewer, determined by the issues in dispute during preliminary review. The expert reviewer does not necessarily have the same board certification as the requesting physician but is knowledgeable and qualified to review the requested treatment.

Table 4: IMR Expert Reviewers by Board Certification/Relevant Specialty, 2016

Board Certification	Total	% of Case Decisions
Physical Medicine & Rehabilitation	43,084	25%
Occupational Medicine	38,476	22%
Family Practice	30,443	17%
Pain Management	13,745	8%
Orthopedic Surgery	12,205	7%
Internal Medicine	9,450	5%
Emergency Medicine	7,505	4%
Rheumatology	4,067	2%
Total	158,975	90%

Conclusion and Future Directions

Now in its fifth year, IMR continues to provide expedient, efficient resolution of medical necessity disputes in the California workers' compensation system.

The number of IMR applications has remained remarkably stable from month to month.

Overall, reviews are being completed faster. In January 2016, it took an average of 58 days to complete an IMR from the date the NOARFI was issued. By the end of the year, that number was 31 days. This was due in part to enhanced efforts by the DWC to ensure the timely submission of medical records by claims administrators to the IMRO.

The time for posting IMR decisions on the DWC web site has been greatly reduced. Currently, copies of FDLs are posted every 60 days. Each upload is for all decisions issued in the preceding two calendar months, which can average between 27,000 and 30,000 new files each period.

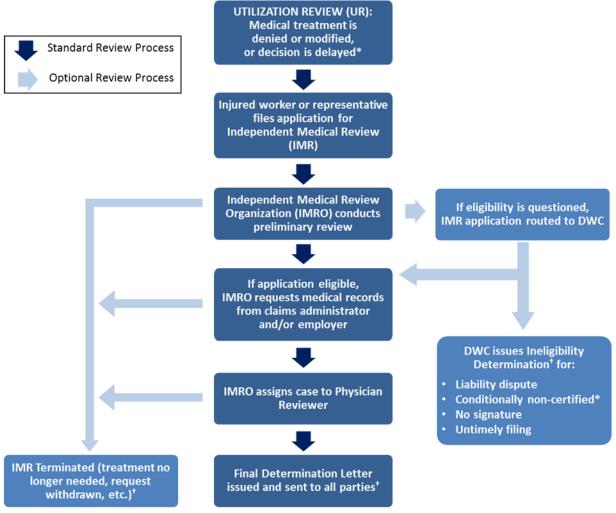
Refinement in the categorization of services has enhanced the ability to further evaluate the types of services submitted for IMR and the decisions on those treatments.

The DWC plans for further program enhancement include:

- In 2016, the IMRO piloted an online portal for submission of medical records for all parties; full implementation is planned for 2017. This is expected to facilitate use of the IMR process by allowing parties to submit and check records online as well as track progress of the IMR request.
- The DWC has proposed an evidence-based MTUS drug formulary, based on the treatment guidelines of the American College of Occupational and Environmental Medicine (ACOEM). The MTUS treatment guidelines will also undergo a planned transition to the most recent ACOEM guidelines. These changes to the MTUS are expected to reduce the amount of UR and IMR involved in drug prescriptions, the largest category of IMR requests.
- The DWC and Maximus will continue to collaborate on the refinement of service categorization to expand the search function's capabilities and to enable users to perform increasingly targeted searches of treatment requests.

Appendices

Appendix A: The Independent Medical Review Process



^{*} Treatment decisions may be delayed if physician or claims administrator has not provided the information requested. This is referred to as "conditionally non-certified."

[†] Closed cases

Appendix B: IMR Applications Received by Month, 2016

Month	Total Apps	Unique	Eligible
January	18,164	14,293	12,227
February	20,327	15,789	13,606
March	22,289	17,405	15,183
April	21,576	16,878	14,657
May	21,716	17,132	14,802
June	21,618	16,938	14,605
July	19,633	15,495	13,569
August	22,325	17,717	15,773
September	20,468	16,211	14,533
October	21,085	16,461	14,747
November	20,641	16,304	14,782
December	19,594	15,434	13,968

N = 249,436 IMR applications received in 2016, of which 196,057 were unique applications, and 172,452 were eligible applications. Source: DWC.

Appendix C: Ineligible Applications by Month, 2016

Month	No Signature	No UR	No Sig and UR	Untimely	CNC	Other	Totals
Jan	181	923	42	403	371	146	2,066
Feb	231	1,028	39	303	410	172	2,183
Mar	229	951	38	366	444	194	2,222
Apr	244	1,000	45	302	432	198	2,221
May	265	1,025	39	335	475	191	2,330
Jun	240	1,009	37	386	471	190	2,333
Jul	172	757	42	394	422	139	1,926
Aug	173	840	38	292	444	157	1,944
Sep	111	653	20	293	472	129	1,678
Oct	105	564	29	381	483	152	1,714
Nov	99	525	17	330	440	111	1,522
Dec	79	469	18	324	482	94	1,466
Total	2,129	9,744	404	4,109	5,346	1,873	23,605
% of Total	9%	41%	2%	17%	23%	8%	100%

N = 249,436 IMR applications received in 2016, of which 23,605 (9.5%) were ineligible. Source: DWC.

Appendix D: Final Determination Letters (Case Decisions) Issued by Month, 2016

Month	Total	Month	Total
January	13,307	July	14,272
February	13,605	August	16,362
March	16,635	September	15,721
April	13,813	October	13,344
May	13,833	November	15,487
June	14,690	December	14,933

Appendix E: Geographic Regions Defined by Constituent Counties, 2016

Region	County
	Alameda
	Contra Costa
	Marin
	Napa
	San Francisco
	San Mateo
	Santa Clara
	Solano
Bay Area	Sonoma
	Monterey
	San Benito
	San Luis Obispo
	Santa Barbara
	Santa Cruz
CentralCoast	Ventura
	Fresno
	Kern
	Kings
	Madera
	Merced
	San Joaquin
Central Valley	Stanislaus
Central Valley	Tulare
	Alpine
	Amador
	Calaveras
	El Dorado
	Inyo
	Mariposa
	Мопо
	Nevada
Eastern Sierra	Placer
Foothills	Tuolumne

Region	County		
	Imperial		
	Orange		
	Riverside		
Inland Empire	San Bernardino		
Los Angeles	Los Angeles		
	Del Norte		
	Humboldt		
	Lake		
	Lassen		
	Mendocino		
	Modoc		
	Plumas		
	Shasta		
	Sierra		
North State /	Siskiyou		
Shasta	Trinity		
	Butte		
	Colusa		
	Glenn		
	Sutter		
Sacramento	Tehama		
Valley - North	Yuba		
Sacramento	Sacramento		
Valley - South	Yolo		
San Diego	San Diego		

Appendix F: Geographic Distribution of IMR Case Decisions, 2016

Region	Total	Uphold	Partial Overturn	Overturn
Los Angeles	43,335	38,463	1,845	3,027
Bay Area	35,213	29,857	1,748	3,608
Inland Empire	33,129	28,788	1,569	2,772
Central Valley	20,262	17,726	899	1,637
Central Coast	12,891	11,037	674	1,180
Sacramento Valley	8,658	7,307	456	895
San Diego	8,618	7,246	415	957
Others/Out-of-State	3,900	3,397	162	341
Eastern Sierra Foothills	3,822	3,240	203	379
North State-Shasta	3,259	2,796	141	322
Sacramento Valley (N.)	2,915	2,455	141	319
TOTAL	176,002	152,312	8,253	15,437

Appendix G: IMR Case-Level Results, Represented and Not Represented, 2016

Case Decision	Represented	Not Represented	Total
Overturn	14,526	912	15,438
Partial Overturn	7,826	428	8,254
Upheld	145,211	7,099	152,310
Total	167,563	<i>8,4</i> 39	176,002

Appendix H: Dates of Injury, Case Decisions Issued in 2016

Year of Injury	Total IMR Cases 2016	Year of Injury	Total IMR Cases 2016	Year of Injury	Total IMR Cases 2016
CY 2016	6,502	CY 2009	7,288	CY 2002	4,174
CY 2015	26,026	CY 2008	6,284	CY 2001	4,318
CY 2014	25,340	CY 2007	5,438	CY 2000	3,854
CY 2013	18,636	CY 2006	4,397	CY 1999	2,970
CY 2012	14,506	CY 2005	3,801	CY 1998	2,524
CY 2011	11,612	CY 2004	3,864	CY 1997	1,921
CY 2010	9,582	CY 2003	4,553	Before 1997	8,412

Appendix I: IMR Decisions by Treatment Category (Non-Pharmaceutical), 2016

Cotomora/Cork cotomora	Number of	UR	% UR	UR	% UR
Category/Subcategory	Decisions	Overturned	Overturned	Upheld	Upheld
DIAGNOSTIC TESTING	45,577	4,242	9%	41,335	91%
- EMG/NCV/NCS	7,598	724	10%	6,874	90%
- Imaging, Radiology	20,102	2,031	10%	18,071	90%
- Lab & Pathology	13,950	1,255	9%	12,695	91%
- Other Diagnostic Tests	3,927	232	6%	3,695	94%
DMEPOS	25,679	1,921	7%	23,758	93%
 Durable Medical Equipment 	5,112	266	5%	4,846	95%
- Electrical Stimulation	9,455	862	9%	8,593	91%
- Prosthetics / Orthotics	5,261	425	8%	4,836	92%
- Supplies	5,851	368	6%	5,483	94%
EVALUATION & MANAGEMENT	6,025	1,178	20%	4,847	80%
- Dental Services	522	197	38%	325	62%
 Medical Specialties 	5,503	981	18%	4,522	82%
HOME HEALTH	1,476	95	6%	1,381	94%
INJECTIONS	21,460	2,240	10%	19,220	90%
 Facet Injection 	112	8	7%	104	93%
 Injection 	21,348	2,232	10%	19,116	90%
PROGRAMS	3,483	362	10%	3,121	90%
PSYCHIATRIC SERVICES	4,852	854	18%	3,998	82%
 Evaluation & Management 	3,653	649	18%	3,004	82%
- Therapies	1,199	205	17%	994	83%
REHABILITATION	46,636	3,093	7%	43,543	93%
 Acupuncture 	7,142	456	6%	6,686	94%
 Chiropractic 	5,663	440	8%	5,223	92%
 Other Therapies 	6,942	416	6%	6,526	94%
- Physical Therapy / Occupational Therapy	26,889	1,781	7%	25,108	93%
SURGERY	22.339	2,220	10%	20,119	90%
 Adjunct Surgical Services 	11,959	1,068	9%	10,891	91%
- Arthroscopic Surgery	2,384	212	9%	2,172	91%
- Non-arthroscopic Surgery	7,336	821	11%	6,515	89%
- Surgical Consult	660	119	18%	541	82%
THERAPIES	246	19	8%	227	92%
TRANSPORTATION	286	14	5%	272	95%

N = 178,059 **categorized** treatment requests for **non-pharmaceuticals** issued January–December 2016. Source: DWC.

Appendix J: IMR Decisions for Treatment Requests by Drug Class, 2016

Category/Subcategory	Number of	UR	% UR	UR	% UR
Category/Subcategory	Decisions	Overturned	Overturned	Upheld	Upheld
Opioids	44,981	4,311	10%	40,670	90%
NSAIDs	20,768	1,829	9%	18,939	11%
Muscle Relaxants	20,393	584	3%	19,809	97%
Topical Analgesics	11,259	298	3%	10,961	97%
Proton Pump Inhibitors	9,627	676	7%	8,981	93%
Anti-epilepsy Drugs	8,228	1,099	13%	7,129	87%
Antidepressant	5,966	976	16%	4,990	84%
Benzodiazepine	5,365	111	2%	5,254	98%
Sedative-hypnotics	5,141	93	2%	5,048	98%
Topical Compounds	4,189	12	<1%	4,177	>99%
Adrenal Cortical Steroids	1,655	159	10%	1,496	90%
Gastrointestinal (GI) Agents	1,649	242	15%	1,407	85%
Antiemetic	1,524	65	4%	1,459	96%
Histamine 2	1,364	83	6%	1,281	94%
Impotence Agents	1,364	242	18%	1,122	82%
Nutritional Products	1,100	33	3%	1,067	97%
Anti-infectives	707	29	4%	678	96%
Antihistamine	684	27	4%	657	96%
Atypical Antipsychotic	572	56	10%	516	90%
Antimigraine Agent	461	51	11%	410	89%
Stimulants	361	13	4%	348	96%
Opioid Antagonist	347	40	12%	307	88%
Antihypertensive	266	27	10%	239	90%
Anti-anxiety	192	19	10%	173	90%
Beta-blocker	154	25	16%	129	84%
Barbiturates	128	0	0%	128	100%
Androgens & Anabolic Steroids	122	21	17%	101	83%
Asthma Medications	56	7	13%	49	87%
Calcium Channel Blocker	54	10	19%	44	81%
Antidiabetics	50	9	18%	41	82%
Statin	34	15	15%	29	85%
Alpha-blocker	31	6	19%	25	81%
Levodromoran	2	0	0%	2	100%
Diphenoxylate	1	0	0%	<u>-</u> 1	100%

N = 148,795 treatment requests for pharmaceuticals issued January–December 2016. (Note: 3.8% unspecified **drug classes** for pharmaceutical treatment requests not included.)

Source: DWC.

Appendix K: Expert Reviewer Relevant Specialty, 2016

Expert Reviewer Relevant Specialty	Cases
Physical Medicine & Rehabilitation	43,084
Occupational Medicine	38,476
Family Practice	30,443
Pain Management	13,745
Orthopedic Surgery	12,205
Internal Medicine	9,450
Emergency Medicine	7,505
Rheumatology	4,067
Psychiatry	1,931
Sports Medicine	1,921
Oriental Medicine	1,801
Neurological Surgery	1,740
Psychologist	1,648
Surgical Critical Care	1,636
Hospice & Palliative Medicine	1,289
Chiropractic	1,161
Preventive Medicine	945
Addiction Psychiatry	490
Geriatric Medicine	479
Public Health & General Preventive Medicine	262
Hand Surgery	259
Plastic Surgery	256
Dentist	245
Anesthesiology	215
Podiatrist	184
Psychology	136
Surgery	110
Pulmonary Disease	95
Ophthalmology	67
Otolaryngology	54
Urology	37
Neurology	25
Child and Adolescent Psychiatry	18
Dermatology	13
Cardiovascular Disease	8
Registered Nurse	1
Not Listed	1
TOTAL	176,002